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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,049	02/07/2001	Mark Phillips	S1022/8617	5549

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EXAMINER

MCCARTHY, CHRISTOPHER S

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/779,049

Applicant(s)

PHILLIPS, MARK

Examiner

Christopher S. McCarthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The abstract states in the second paragraph "application to determines the entry point...", wherein, "determines" should not end with an "s". Appropriate correction is required.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

3. Claim 2 is objected to because of the following informalities: There is an extraneous semicolon after the limitation ending with "said stack location;,". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 5 recites the limitation "said embedded computer system" in paragraph three of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hall et al.

U.S. Patent 5,175,828.

As per claim 1, Hall discloses a method of operating a target computer system, wherein said target computer system has a memory comprising plural addressable locations and is adapted to run an application, the method comprising of providing on a host computer a file, comprising a subroutine required for operation of said application; dynamically loading said file from said host computer to said memory of said target computer system, whereby said file has an entry point at a dynamically-determined addressable location (column 3, lines 45-68); storing at a predetermined one of said addressable locations data representative of the address of said entry point (column 6, lines 19-26); running said application, whereby said application determines said data representative of said address thereby accessing said subroutine; and running said subroutine (column 6, lines 58-61).

As per claim 5, Hall discloses a device for operating an embedded digital signal processor said embedded signal processor having a memory comprising plural addressable locations, and being adapted to run an application, the device comprising a host computer connected to said embedded digital signal processor, said host computer comprising a computer file including a subroutine required for said application (column 3, lines 61-67); said host computer comprising a linker-loader connected to said link and operative to send file and dynamically load said file to said memory of said embedded computer system whereby said file has an entry point at one of said addressable locations, said loader-linker

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comprising means for storing at a predetermined one of said addressable locations data representative of the address of said entry point (column 3, lines 45-67); said embedded digital signal processor comprising processor circuitry running said application whereby said application determines said data representative of said address, thereby accessing said file to enable said application to run (column 6, lines 19-26).

### ***Double Patenting***

8. Claims 2 and 7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 5 of copending Application No. 09/778,580 ('580). Although the conflicting claims are not identical, they are not patentably distinct from each other because:

As per claim 2 of the present application of 09/779,049 (referred to hereon as '049), the limitation of the preamble of '049 claims a method of debugging a target system connected to a host computer, the target having a digital signal processor with a memory including a reserved storage location designated as a vector, said memory further storing an application program. The application of '580 claims in claim 5, a method of debugging a computer system connected to a host computer, the computer system having a memory including a reserved storage location designated as a vector with the further limitation of causing an application to run on said computer system. The application of '049 does not specifically disclose a computer system. The Examiner takes official notice that it is well known in the art that a target system with a digital signal processor to be in a computer system environment. It would be obvious to one of ordinary skill in the art to include a digital signal processor into a computer system. One of ordinary skill

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in the art would have been motivated to combine a digital signal processor into a computer system because using a digital signal processor in a computer system performs data manipulation of the computer system at high speeds making the computer system more versatile. Furthermore, application '049 claims the further limitation of loading a stack into said memory. Application '580 claims, in claim 5, dynamically loading into said memory a stack. Also, application '049 claims storing in said reserved location information indicative of said stack location;; dynamically loading a computer file into said memory, said file containing a subroutine required for use by said application program; and storing at a predetermined location in said stack data indicative of an entry point into said dynamically loaded file; running said application on said target, whereby said application accesses said vector to thereby call said entry point and thus run said subroutine. These limitations are met in application '580 by claim 5 as follows: dynamically loading a computer file into said memory for use by said digital signal processor; and storing at a predetermined location in said stack data indicative of an entry point into said dynamically loaded computer file; causing an application to run on said computer system whereby said application accesses said vector to thereby locate said entry point so that said application calls a subroutine in said computer file.

As per claim 7 of application '049, the preamble states a debugging device comprising a target system connected to a host computer, the target having a digital signal processor with a memory including a reserved storage location designated as a vector, said memory further storing an application program. The application of '580 claims in claim 5, a method of debugging a computer system connected to a host computer, the computer system having a memory including a reserved storage location designated as a vector with the further limitation

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of causing an application to run on said computer system. The application of '049 does not specifically disclose a computer system. The Examiner takes official notice that it is well known in the art that a target system with a digital signal processor to be in a computer system environment. It would be obvious to one of ordinary skill in the art to include a digital signal processor into a computer system. One of ordinary skill in the art would have been motivated to combine a digital signal processor into a computer system because using a digital signal processor in a computer system performs data manipulation of the computer system at high speeds making the computer system more versatile. Application '049 further claims the device comprising: first loading circuitry for loading a stack into said memory; vector writing circuitry for storing in said reserved location information indicative of said stack location; dynamic loading circuitry in said host for loading a computer file into said memory of said digital signal processor, said file containing a subroutine required for use by said application program; stack writing circuitry for storing at a predetermined location in said stack data indicative of an entry point into said dynamically loaded file; wherein when said digital signal processor runs said application, said application accesses said vector to thereby call said entry point and thus runs said subroutine. Application '580 meets these limitations by stating dynamically loading into said memory a stack; storing in said reserved location information indicative of said stack location; dynamically loading a computer file into said memory for use by said digital signal processor; and storing at a predetermined location in said stack data indicative of an entry point into said dynamically loaded computer file; causing an application to run on said computer system whereby said application accesses said vector to thereby locate said entry point so that said application calls a subroutine in said computer file. Although claim 7 of '049 does not

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explicitly disclose a method running on the device of claim 7, the Examiner takes official notice that the device of claim 7 would perform the method of claim 5 of '580 when the device is in operation. It would be obvious to one of ordinary skill in the art to perform the method of claim 5 of application '580 to be run on the apparatus of claim 7 of application '049. One of ordinary skill would have been motivated to perform the method of claim 5 of application '580 to be run on the apparatus of claim 7 of application '049 because the apparatus of '049, when utilized, would perform the method of '580 as they both desire to achieve the same result of debugging.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Allowable Subject Matter***

9. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for claims of 2 and 7 to overcome the cited prior art: When read as a whole, claims 2 and 7 overcome cited prior art with respect to the following limitations:

As per claim 2, the primary reasons for overcoming cited prior art are the limitations of storing at a predetermined location in said stack data indicative of an entry point into said dynamically loaded file and running said application on said target, whereby said application accesses said vector to thereby call said entry point and thus run said subroutine.



As per claim 7, the primary reasons for overcoming cited prior art are the limitations of stack writing circuitry for storing at a predetermined location in said stack data indicative of an entry point into said dynamically loaded file; wherein when said digital signal processor runs said application, said application accesses said vector to thereby call said entry point and thus runs said subroutine.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (703)305-7599. The examiner can normally be reached on M-F, 8 - 4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoleil can be reached on (703)305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

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